



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,376	04/15/2005	Atsutaka Manabe	MERCK-2996	6526

23599 7590 01/10/2006

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
2200 CLARENDON BLVD.  
SUITE 1400  
ARLINGTON, VA 22201

EXAMINER

WU, SHEAN CHIU

ART UNIT PAPER NUMBER

1756

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,376	<b>Applicant(s)</b> MANABE ET AL.	
	<b>Examiner</b> Shean C. Wu	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/15/05</u> . | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the present invention having at least one compound of formula II with four rings (i.e.,  $f=1$ ), does not reasonably provide enablement for the invention with only three rings of formula II (i.e.,  $f=0$ ). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. See the Examples 1-4.

2. Claims 1-3, 6-7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is not clearly defined because the compounds represented by the formula I and formula II overlap each other when  $a=1$  and  $f=0$  (three rings). Also in claim 7, the formula III and formula I are double inclusion because the compound of V-HHB(3F)-F reads on the present formulae I and III.

In Claim 9, the formula I is also double inclusion with formulae VI, VII and VIII. See the definition of the formulae I and VI-VIII.

3. Claim 11 provides for the use of the liquid-crystalline medium, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process

Art Unit: 1756

applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al. (US 6,210,603 or EP-949231).

The reference discloses liquid crystalline compounds represented by the general formula (1) having an extremely high voltage holding ratio, a low threshold voltage and a high  $\Delta n$ . The liquid crystalline compounds of formula (1) are useful for liquid crystal compositions and display devices containing the liquid crystal compositions thereof.

The compositions example 6-7, 15-18, 21-23, 25 and 27-30 anticipate the claimed invention. Particularly composition examples 25 and 29, the compound 49 of composition example 25 and compound 10 of composition example 29 read on the

Art Unit: 1756

present formula II; the compounds 3-HHB-OCF<sub>3</sub>, V-HHB(3F)-F, 3-HHB(3F)-F, HHEB-OCF<sub>3</sub>, and HBEB(3. 5F)-F of composition example 25 and 3-HHEB-F of composition example 29 read on the present formula I; the compound of V-HHB(3F)-F of composition example 25 and the compound of V2-HHB-1 read on the present formula III. Therefore, the reference clearly anticipates the claimed invention.

6. Claims 1-6 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (US 5,762,828).

The reference discloses liquid crystal medium comprising fluorinated terphenyl compounds having a large resistance and UV stability, which are useful for AMD display device. The fluorinated terphenyl represented by formula I and fluorinated phenyl represented by formula II read on the present formulae I and II including IA and VI-VIII. See the reference formulae FET-nCl, FT-nFCl and T-nFFF correspond to the present formulae VI-VIII. The reference compounds represented by formula CCP-nFFF read on the present formulae I and IA. See the Examples 1-8.

The reference clearly anticipates the claimed invention.

7. Claims 1-8 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Heckmeier et al. (US 2003/0134056).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37

Art Unit: 1756

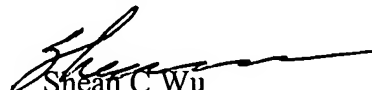
CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. See the Examples 31-32, 34 and 40.

8. It is noted that the Office has not received the foreign patent documents listed in PTO-1449.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shean C Wu  
Primary Examiner  
Art Unit 1756

scw